



Maryland Bicycle and Pedestrian Master Plan 2019 Update

Overview for MBPAC
January 26, 2018

Maryland Bicycle and Pedestrian Master Plan (BPMP)



- Establishes a 20-year vision to support cycling and walking as modes of transportation in Maryland
- Outlined in state statute: Guides initiatives and investments
- Updated every 5 years (Last update 2014).
- Coordinated with and Supports the MD Transportation Plan

Maryland Transportation Plan (MTP)

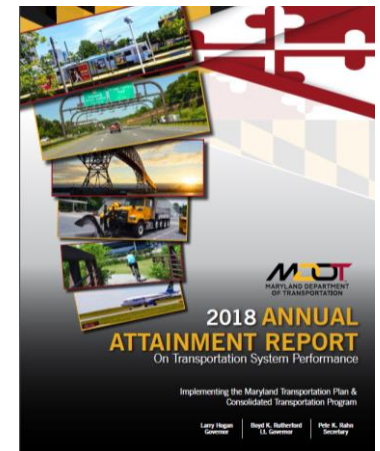
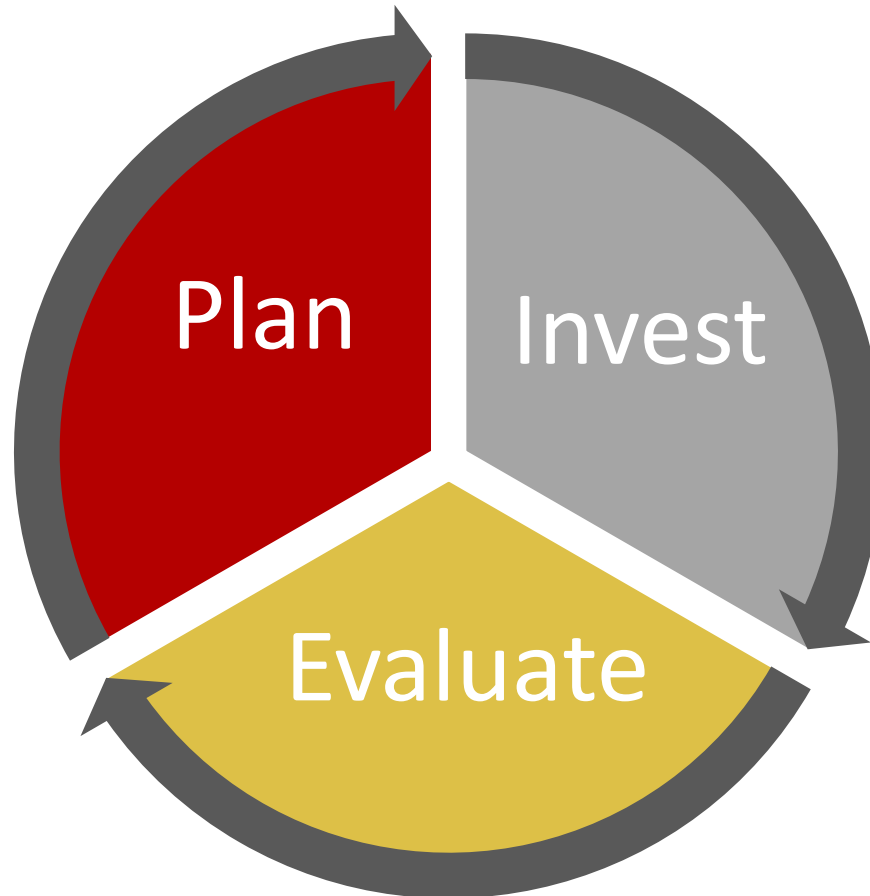
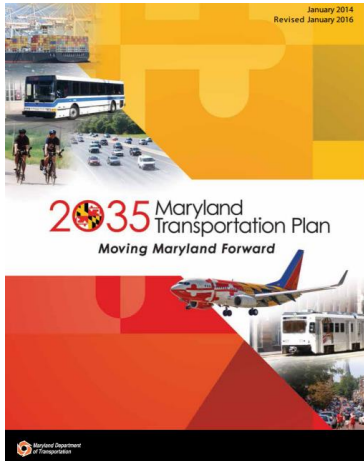
- **Federal - FAST Act:**

- 20-year vision – policies and priorities.
- Performance-based approaches to support national goals.
- Intermodal and coordinated with regional and other strategic plans
- Reflects financial resources needed
- Contains bicycle and pedestrian access as an element.

- **State Report on Transportation (Annual)**

- Informs project selection/ justification
 - MTP (**Plan**: Goals/Objectives)
 - Consolidated Transportation **Program** (CTP)
 - Attainment Report (AR) on Transportation **Performance**.

The State Report on Transportation



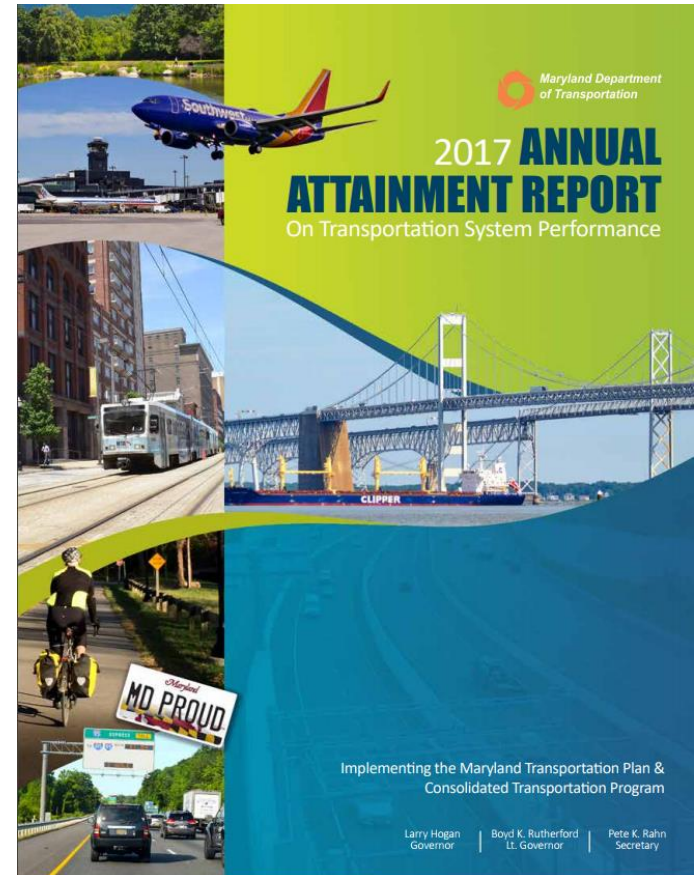
Maryland Bicycle and Pedestrian Plan and Maryland Transportation Plan

Safety & Security	Pedestrians and cyclists over 20% of Maryland fatal traffic crashes.
Environmental Stewardship	Transportation accounts for over 30% of Maryland's greenhouse gas emissions.
Community Vitality	In 2016, 9.1% of Maryland households did not own a vehicle. Walking and biking support property values and health.
Economic Prosperity	Transportation accounts for 16.6% of household expenditures in Baltimore Metro Area. Walking and biking enhance access to commercial areas and tourism opportunities.

Annual Attainment Report and Performance Monitoring

Includes tracking of:

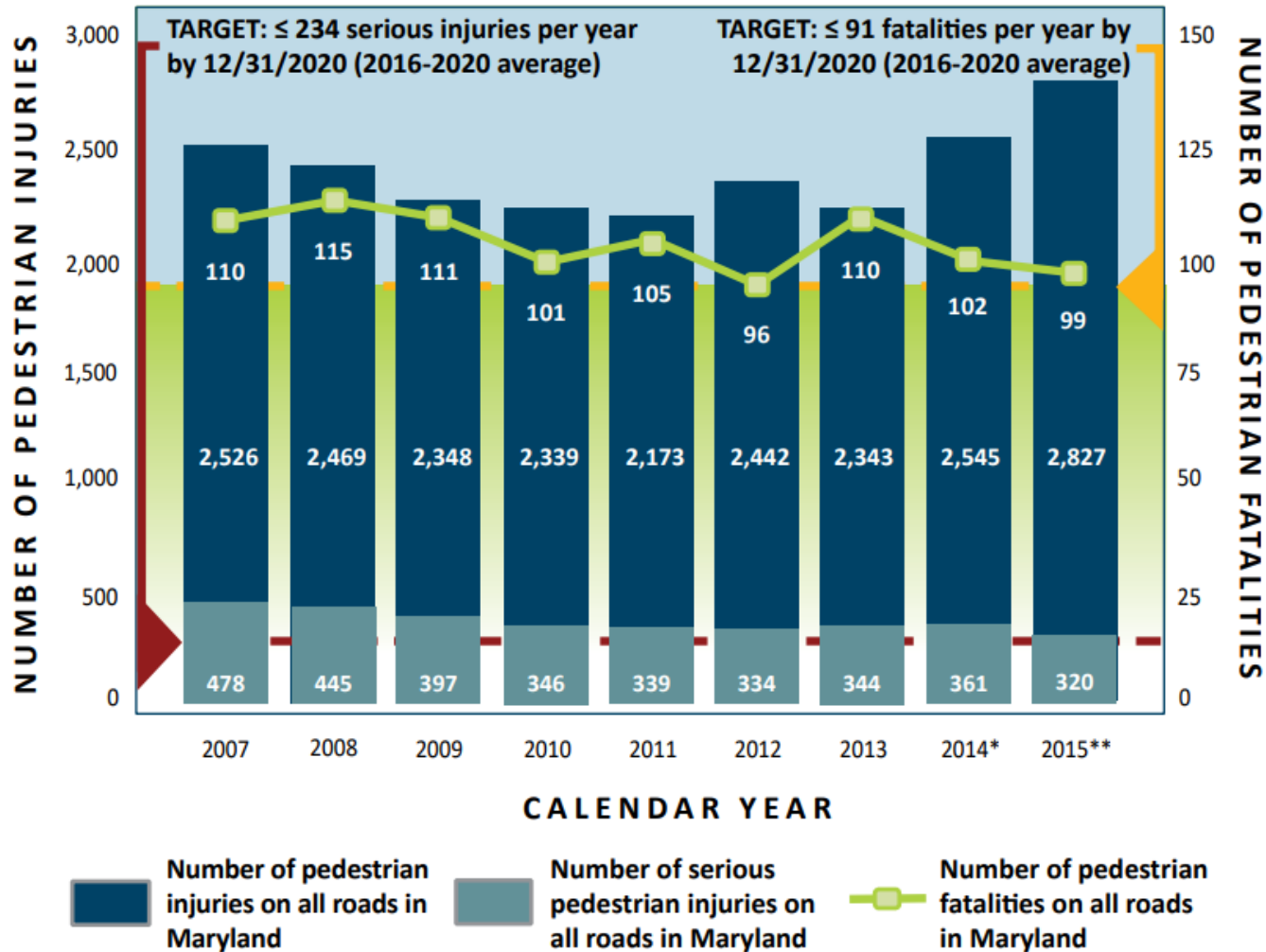
- # of bike fatalities and injuries
- Bicycle Level of Comfort
- Miles improved for bicycle access (Target: up 2% each year)
- # of pedestrian fatalities and injuries



Bicycle Level of Comfort & Directional Miles Improved



Number of Pedestrian Fatalities and Injuries on MD Roads



* 2014 data revised from previous report.

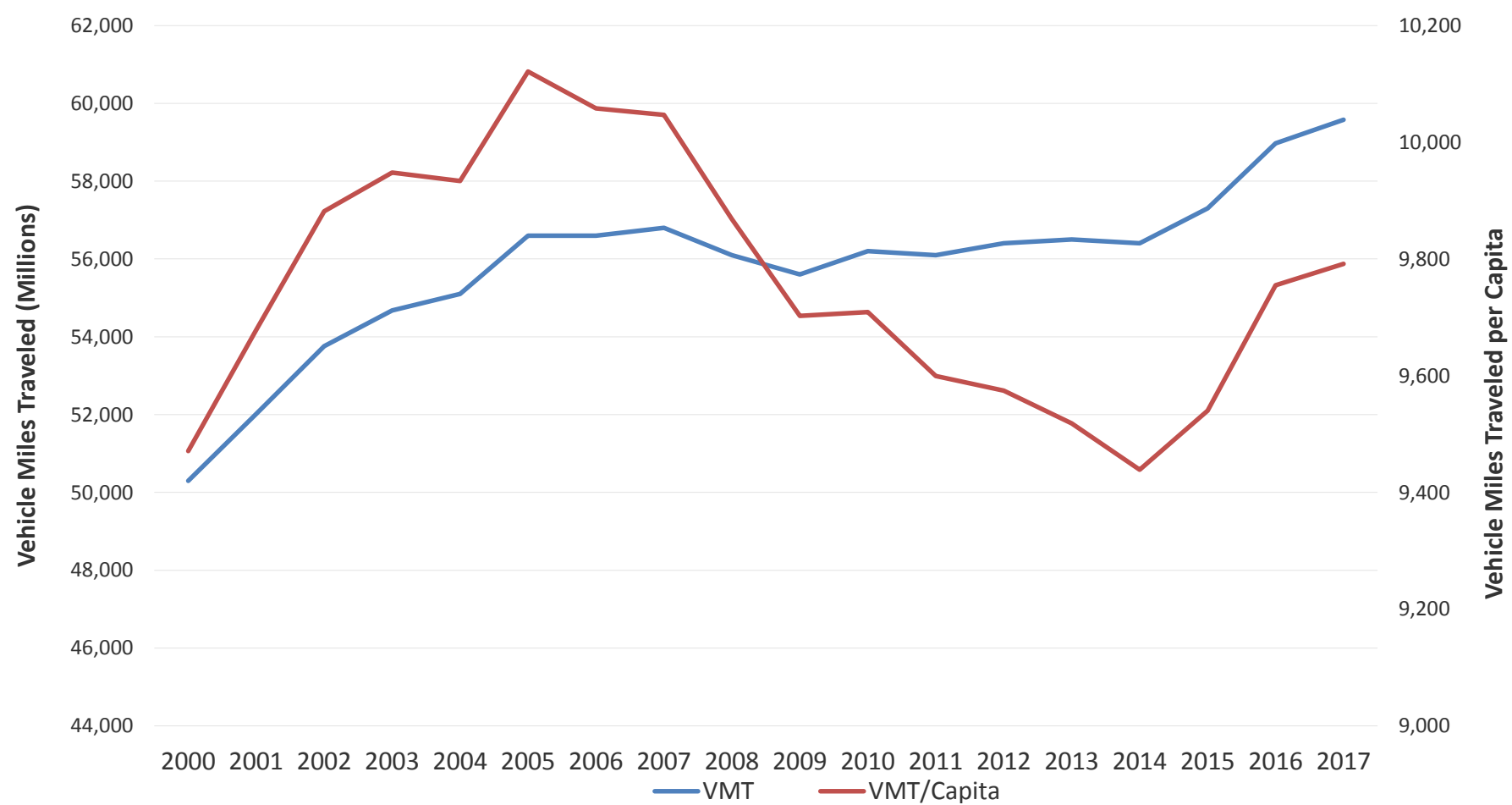
** 2015 data is preliminary and subject to change.

2019 MTP and BPMP Update Schedule

Schedule:

- **2017** –Preliminary Research, Outreach and Strategy: Input on updating goals/objectives.
- **Winter 2018** – Analysis of Trends, Existing Conditions, and Progress from Previous Planning Effort.
- **Spring 2018** - Public Workshop: Progress, Needs and Opportunities.
- **Summer 2018** – Research & Update Initiatives/Strategies.
- **Fall 2018** -Prepare and Release Draft Plan
- **January 2019** - Delivery of Final Plan

Transportation Trends: After Decreasing During the Recession, VMT is growing again



Planning Context: Network Inventory and Trends

TRANSIT



225,000,000
Maryland Ridership in FY2016

Ridership in Maryland reached 225 million in FY2016 with a total average weekday ridership of 369,215. The main modes comprise local bus, subway, MARC train, and light rail

ELECTRIC VEHICLES

RANKED 10th

For Number of Electric Vehicle Charging Stations



Proliferation of electric vehicles in Maryland continues. As of August 2017, Maryland ranked 10th for the number of electric vehicle charging stations. There are 9,634 electric vehicles and plug-in hybrids registered.

LAND

9,707 square miles
5th most densely populated



Maryland is only the 41st largest state with 9,707 square miles . . . but it is the 5th most densely populated state with 620 persons per square mile.

FREIGHT

\$410 BILLION

Maryland carried in freight

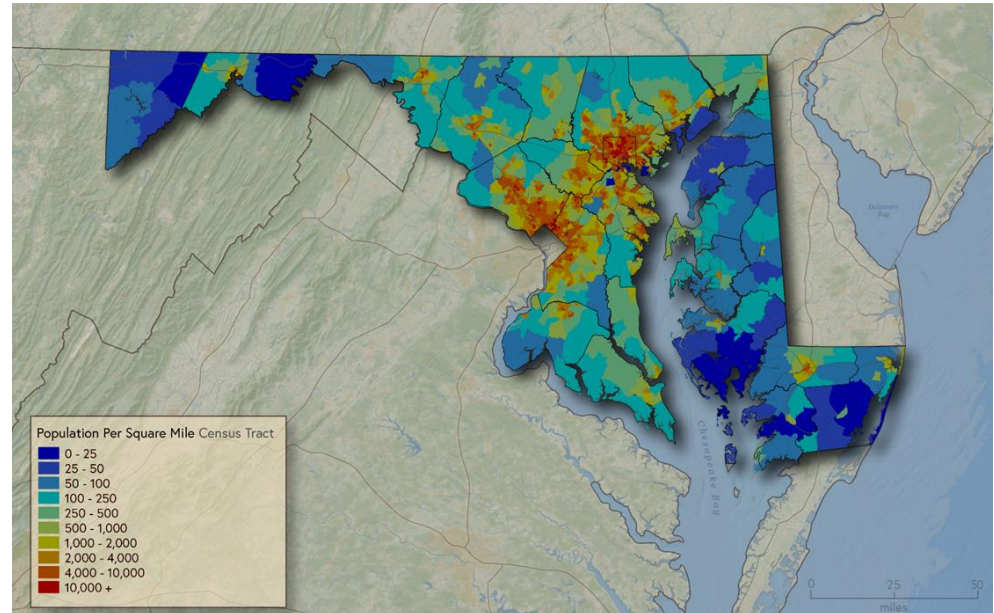


Maryland carried \$410 billion in freight (air, rail, truck & water) in 2016.

Maryland's Population

- Population is densest in Central Maryland
- Marylanders are getting older and make up a higher percentage of the population in non-urban areas
- Outside of Baltimore City, the highest poverty rates are concentrated in Western Maryland and Eastern Shore
- Population growth projection is a 13.6% growth from 2016 to 2040

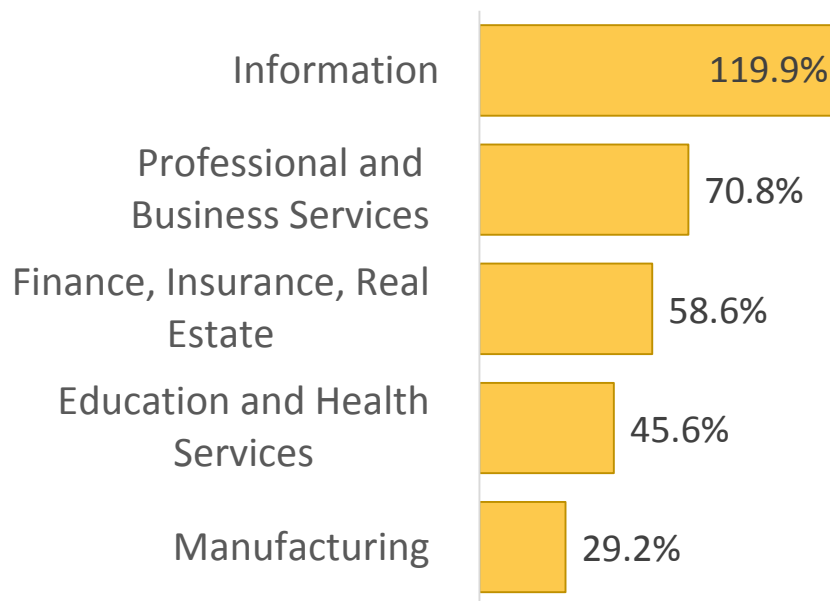
Population Density



13.6% ↑ 2040
2016

Maryland's Economy

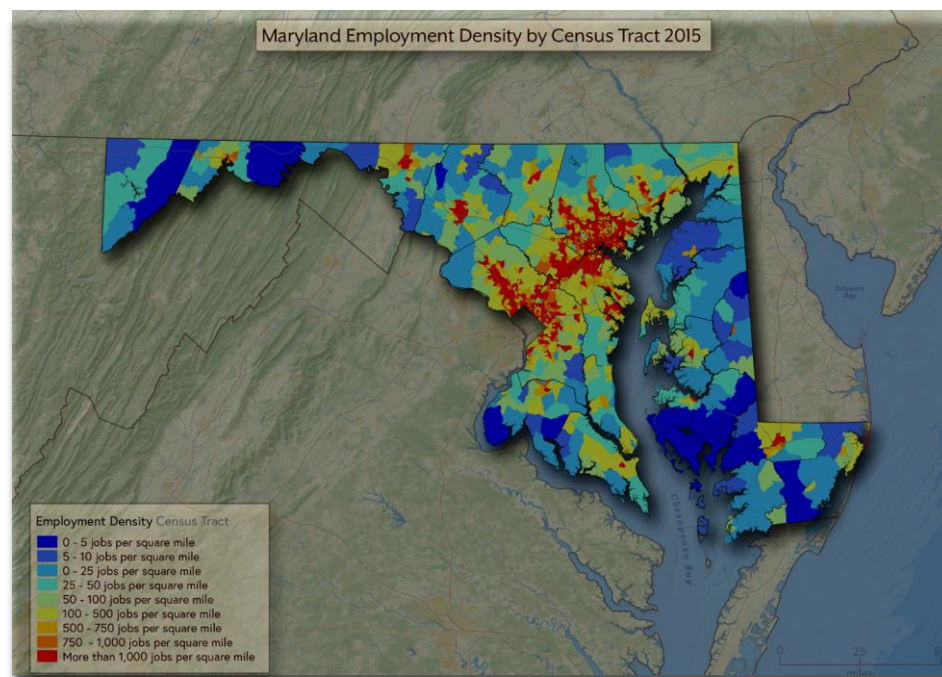
Real GSP Growth in Maryland By Supersector (2000 – 2015)



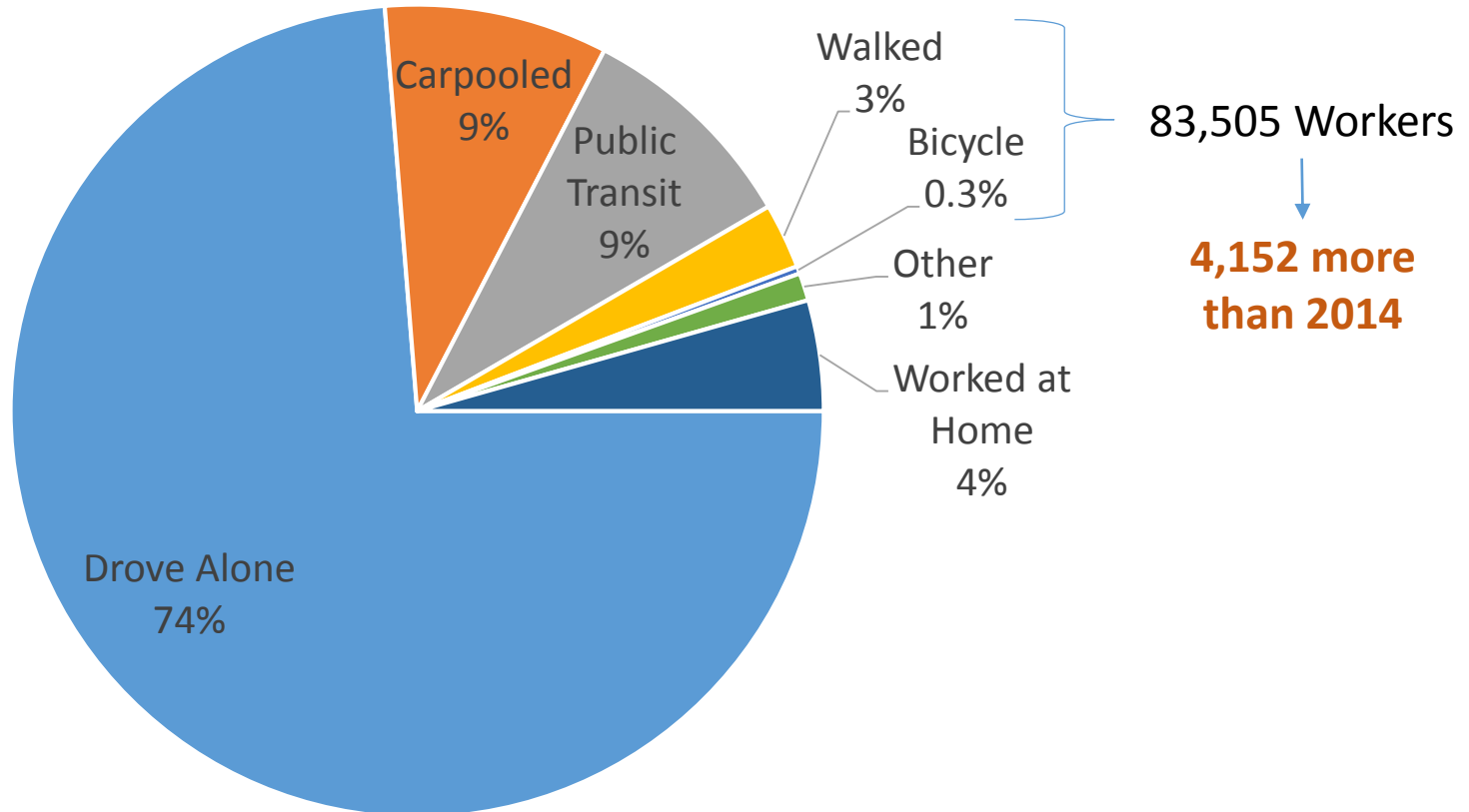
Maryland's economy is dominated by **services and government sectors**

Employment is concentrated in key locations in and near major cities and along transportation arteries

Employment Density

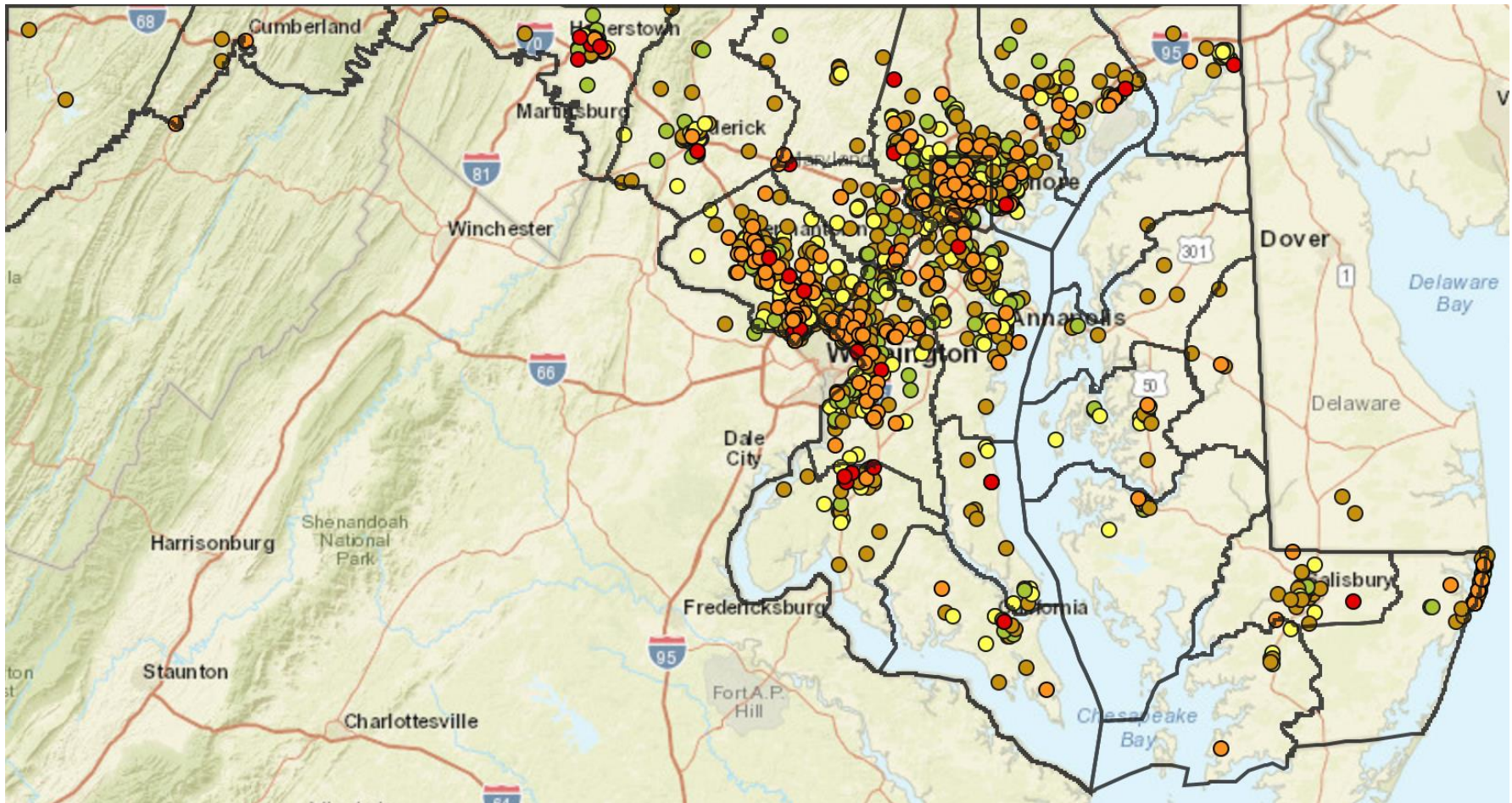


In 2016, 74% of Maryland Workers Drove Alone to Work



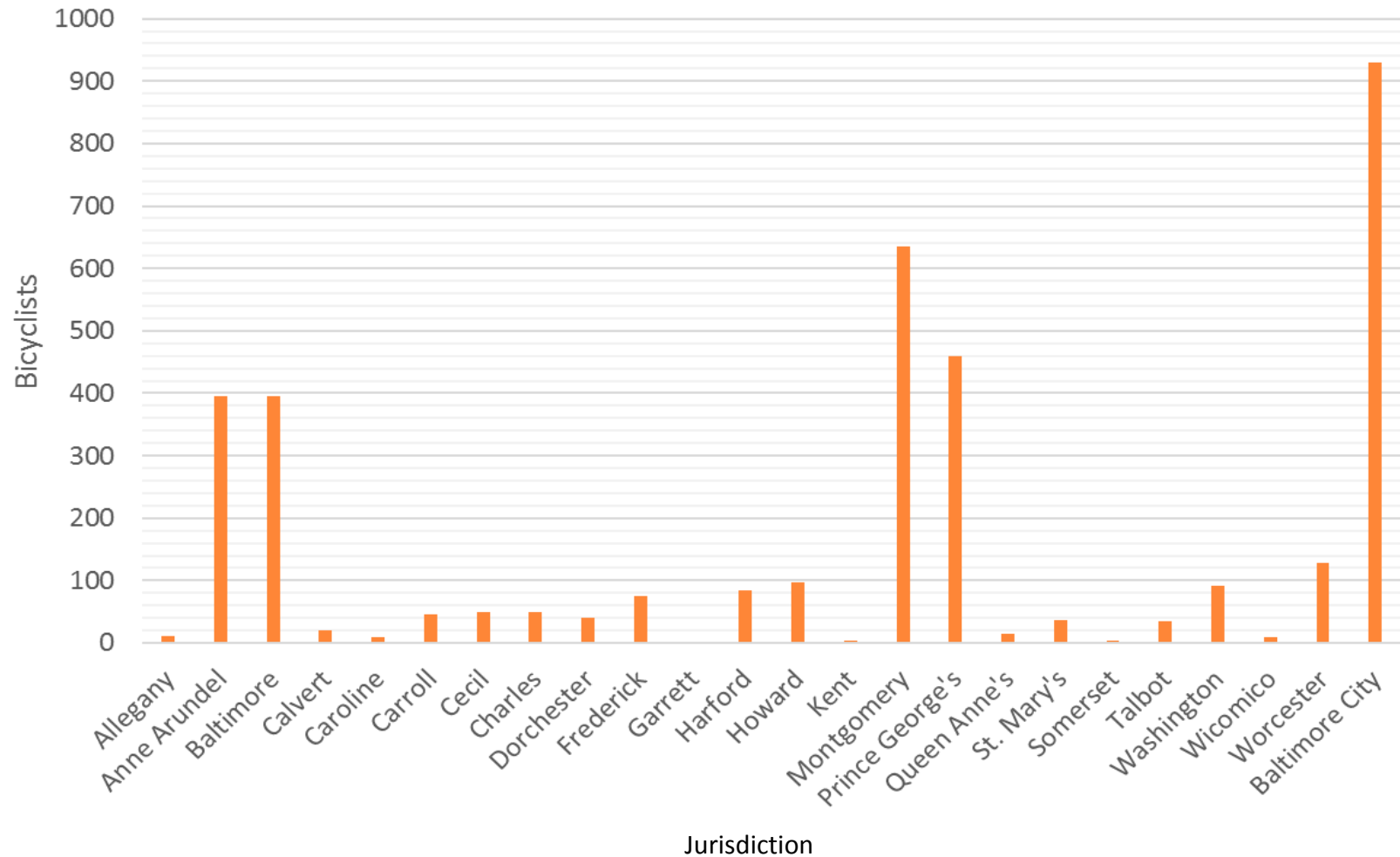
Source: ACS 2016 1-year estimates

Police-Reported Bicycle Crashes in Maryland



From 2011 through 2015, there were a total of 3,908 police-reported bicycle crashes in Maryland

Bicycle Crashes by Jurisdiction

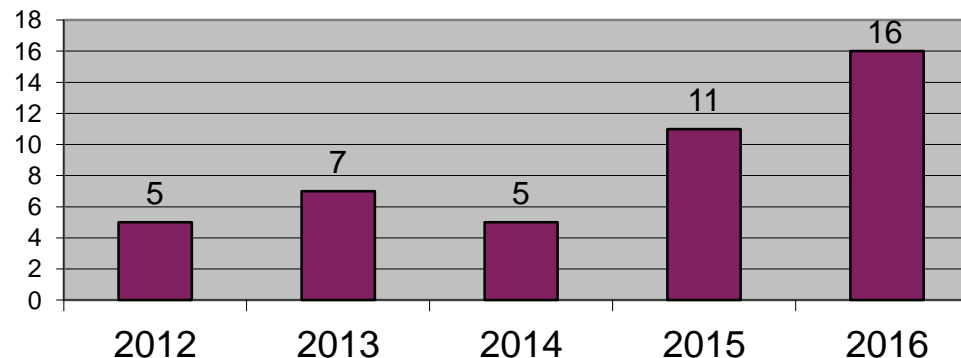


Maryland Bicycle Crash Data

Bicycle Involved Crashes

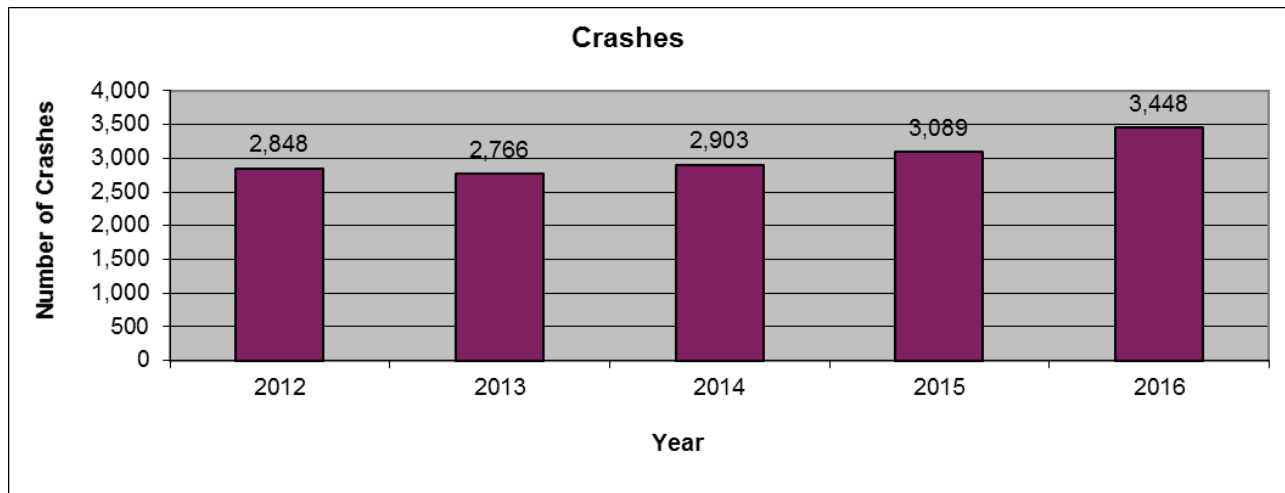
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>		5 Year AVG.
Fatal Crashes	5	7	5	10	16		9
Injury Crashes	662	558	646	678	641		637
Property Damage Crashes	176	159	150	153	154		158
Total Crashes	843	724	801	841	809		804
						2017	
						1st 6mos	
Total of All Fatalities	5	7	5	11	16	6	9
Total Serious Injuries	N/A	52	71	50	63	35	59
Total Number Injured	691	573	673	712	670		664

Persons Killed – Bicycle Involved



Conditions and Trends: Pedestrians

	2012	2013	2014	2015	2016	5 Yr. Avg.	%
Fatal Crashes	95	110	103	99	107	103	3.4
Injury Crashes	2,361	2,253	2,445	2,724	3,064	2,569	85.3
Property Damage Only Crashes	392	403	355	266	277	339	11.2
Total Crashes	2,848	2,766	2,903	3,089	3,448	3,011	100.0
Total of All Fatalities	99	111	104	100	109	105	
Total Number Injured	2,579	2,515	2,707	3,050	3,497	2,870	



2017 – Plan Inputs:

Task Force to Study Bicycle Safety on Maryland Highways



- Priority Issues and Concerns
- 39 Recommendations:
 - Legislative Tools and Operations Guidance
 - Infrastructure Design and Performance Measures
 - Site Access and Utilities
 - Education and Outreach
 - Funding Programs/Needs.

Bike/Ped Plan Inputs: 2017 and Ongoing

- **Trail Planning Workshops with DNR:**

- Lower Eastern Shore (Cambridge)
- Western MD: (Hagerstown)

- **Smart Growth Sub-Cabinet and Sustainable Growth Commission:**

- **Sustainable Community Strategies**
Designations and Local Plan Reviews.

- **SHA Initiatives:** BPPA Designations, Spine Network.

- **MDOT Bike Ped Work Group** (Bi-monthly)

- **Metropolitan Planning Organizations ;** MWCOG, BRTB, WILMAPCO.

Strategic Highway Safety Plan – Partners
– Bike/Ped Emphasis Area Team

Maryland Heritage Area Authority

Best Practices Review of State Level Bike Ped Plans.

MBPAC: One MDOT

- ▣ TSO (Jan)
- ▣ SHA (April)
- ▣ MTA (July)
- ▣ MAA (Sept)
- ▣ MVA (Dec)

- **MBPAC Roundtable: Oct 20**

Bike Ped Master Plan - Goals and Objectives (2014)

GOAL 1: BUILD CONNECTED NETWORKS

- Develop networks of accommodations along state roadways.*
- Improve integration of bicycle and pedestrian transportation with transit.
- Prioritize enhancement of pedestrian & bicycle travel in areas with high potential for short trips that can be accomplished by walking & biking.
- Improve links between shared use paths and on-road facilities and address key gaps in transportation trail systems.*

GOAL 2: IMPROVE SAFETY

- Improve education and training of professionals involved in bicycle and pedestrian safety.
- Improve education and training of the public regarding safe driving, walking, and biking.
- Use best practices to analyze bicycle and pedestrian crashes and identify effective countermeasures.
- Ensure consistent operations and maintenance to provide safe access for pedestrians and cyclists.*

Bike Ped Master Plan – Goals/Objectives 2014 (cont'd)

GOAL 3: PLAN AND DESIGN FOR EVERYONE

- Strengthen evaluation of bicycle and pedestrian conditions to support multimodal decisions.
- Increase professional capacity to effectively plan, design, implement and maintain infrastructure for bicycling and walking.
- Increase use of innovative design solutions to enhance safety and comfort of cyclists and pedestrians.
- Leverage funding opportunities to improve bicycle and pedestrian networks.

GOAL 4: STRENGTHEN COMMUNITIES AND LOCAL PARTNERSHIPS

- *Provide assistance and incentives to local governments to improve biking and walking.**

GOAL 4: Partnerships (Cont'd)

- *Improve coordination between state agencies, and with local governments to support bikeable and walkable communities.**
- Provide assistance and incentives to support efforts to increase biking and walking to schools, colleges and universities.
- Expand outreach and engagement in bicycle and pedestrian initiatives.

GOAL 5: PROMOTE WALKING AND BIKING IN MARYLAND

- Promote bicycling and walking as transportation modes to a diversity of participants.
- Improve access to bicycling and walking information and wayfinding.
- Support growth in bicycle tourism in Maryland.

2015-2018 Accomplishments

1. **Improve state road-related networks (Goal 1, Obj 1)**
 - BLOC and Directional Miles) Attainment Report, Spine Network
2. **Improved Bike and Transit Connections (Goal1, Obj 2)**
 - 36 new and replacement bike racks at MTA rail stations
 - 7 installed and 4 planned Baltimore Bikeshare stations at MTA rail stations
 - Launched 30 Bi-Level MARC cars to accommodate bicycles on Penn, Camden and Brunswick.
3. **Short Trip Opportunity Areas and Bicycle-Pedestrian Priority Areas (Goal 1, Obj. 3)**
 - Refined and Published Analysis of STOAs
 - 11 new designated BPPAs
 - 3 completed Plans

2015-2018 Accomplishments:

Investments - Support Plan Goals:

Improve Links (G1:O4); Leverage Funding, Technical Assistance, Strengthen Partnerships (G4), etc.

Grant	Total Awards	Amount
Bikeways	71	\$9.4 million
Transportation Alternatives	39	\$36.6 million
Recreational Trails	155	\$4.1 million

2015-2018 Accomplishments

4. Supported Launch of Bikeshare Systems

- Montgomery County – 2014
- BWI Marshall – 2014
- Baltimore – 2016
- College Park/University of MD – 2016
- Takoma Park - 2017
- Wheaton – 2017
- University Park - 2017

4. Major Trail Improvements

- Anacostia Riverwalk Trail – (Opened 31, 2016) 125,478 trips since Feb. 2017
- East Coast Greenway – 330 new signs funded across 175 on and off-road trail miles in MD
- BWI Trail: 617,726 trips since March 2014

Goal 2: MD Strategic Highway Safety Plan



Strategic Vision:

Toward *Zero* Deaths

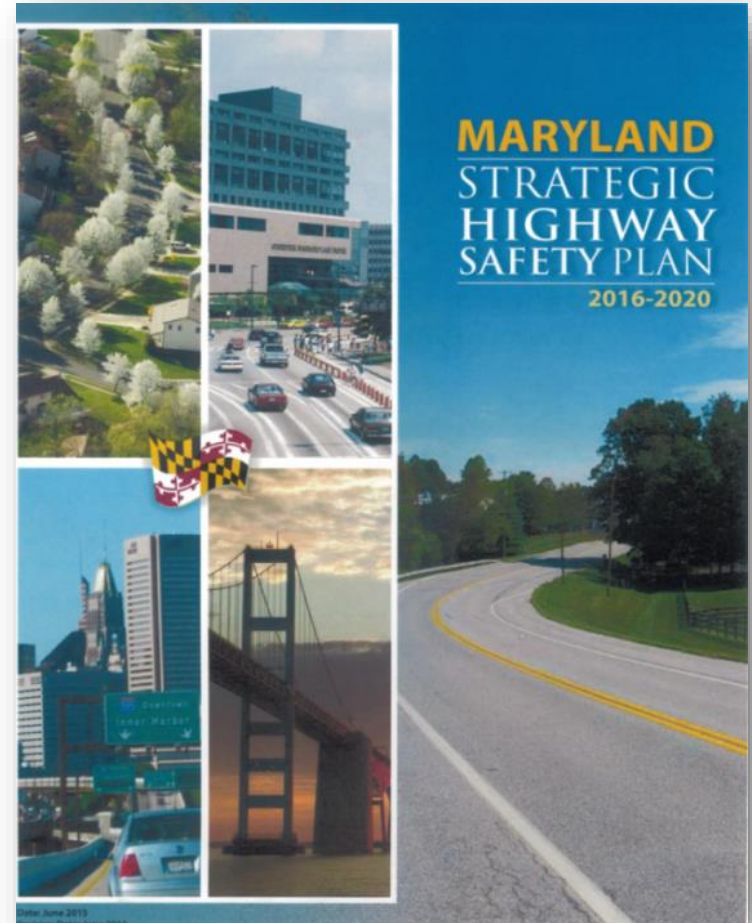
Goal:

Reduce Fatalities and Serious Injuries by ½ by 2030

Interim Targets:

of Fatalities by 2020: 394

of Serious Injuries by 2020: 2,939



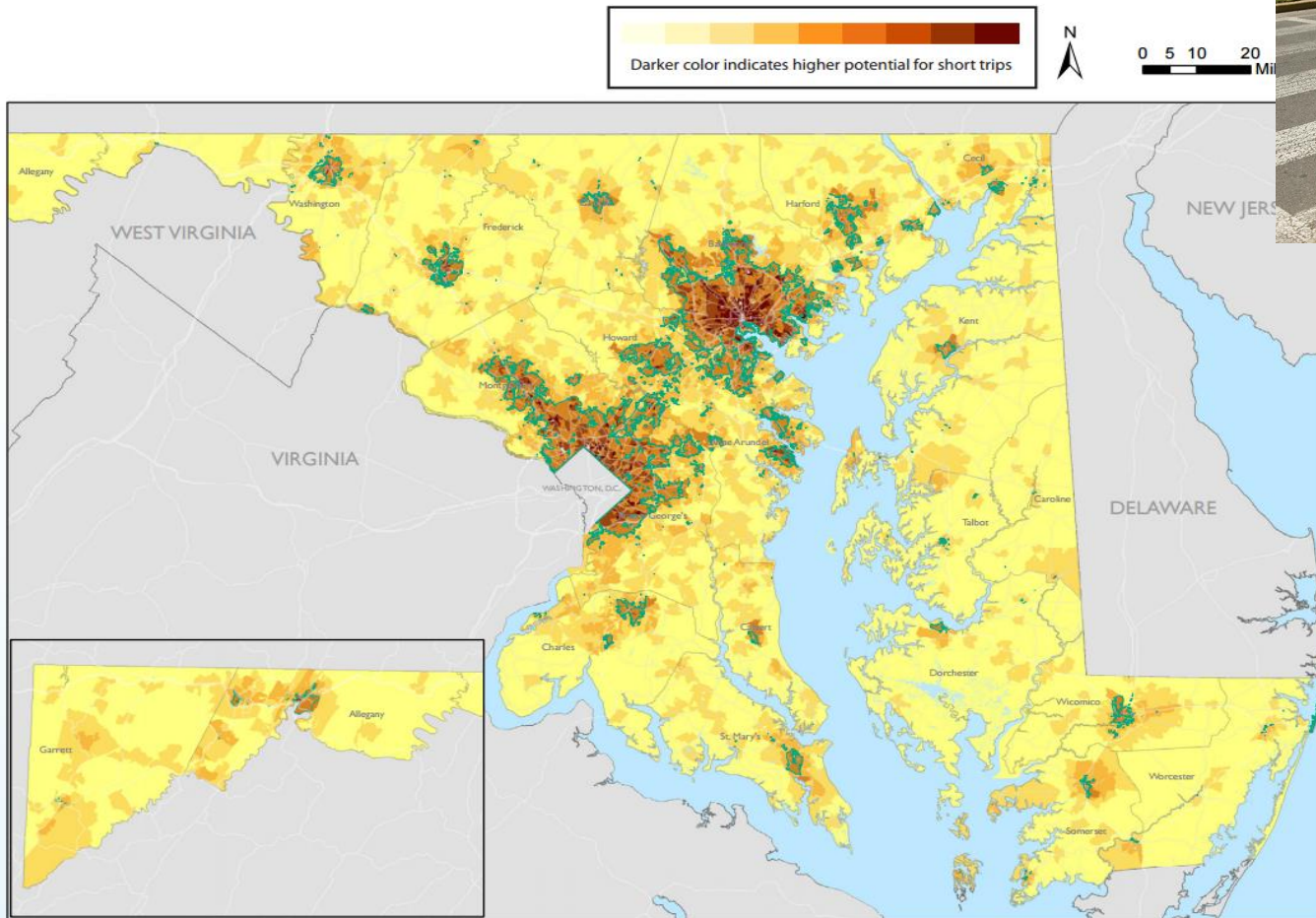
Strategic Highway Safety Plan Pedestrian & Bicycle Safety

Emphasis Area Team – 2016 - Strategies

- **Identify Safety Issues Through Collection & Analysis of Data**
- **Education & Enforcement Initiatives to Promote Safe Behaviors of All Roadway Users**
- **Improve Roadway Environments Through Implementation of Engineering Treatments & Countermeasures**
- **Improve Safety Culture Through Promotion of Safety Legislation & Training of Stakeholders.**
- **Promote Technological Approaches to Prevent Collisions**
- **Pedestrian & Motorists Safety at Emergency Scenes**



Data Development: Short Trip Opportunity Areas Update



Areas with high potential for short trips:

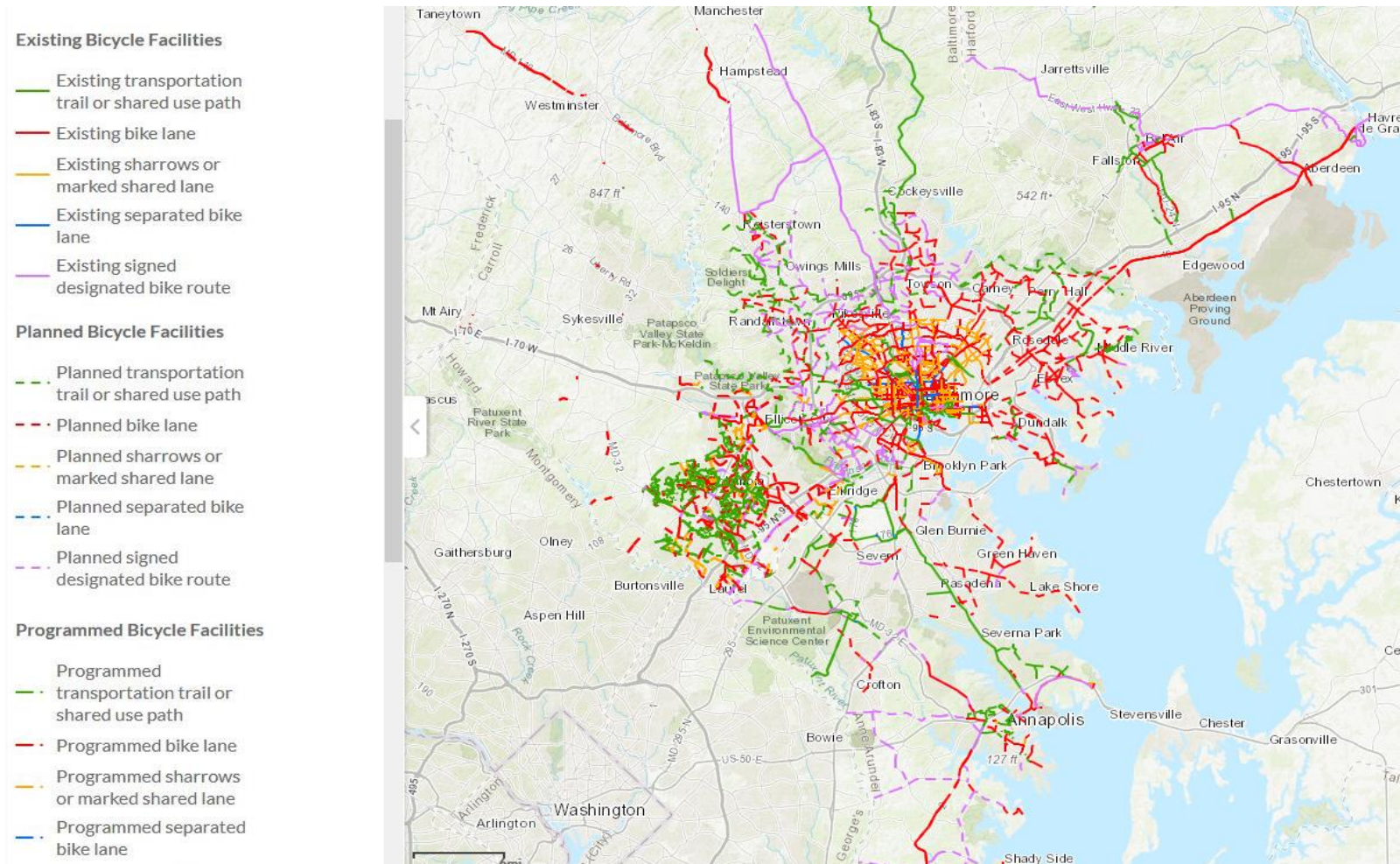
- Comprise 10% of MD land
- 80 % of pedestrian and crashes between 2006 and 2011 occurred in the darkest areas of the map

STRATEGIC APPROACH – LAND USE CONTEXT

Short Trip Opportunity Areas Criteria

Criteria	Weight	Notes
Population Density	25%	Higher population densities are directly related to increased levels of walking and biking due to reducing the distance between origins and destinations.
Job Density	25%	Jobs are a major driver of travel, and can help predict the amount of freight and vehicle commuting that must share the network with pedestrians and bicyclists. Higher job density provides concentration of opportunities for people to walk or bike commute.
Proximity to Bus and Passenger Rail Stations	10%	Walking and biking are the most common ways to access transit.
Percent of Households with No Motor Vehicle Access	20%	Households without access to a private vehicle depend on walking, biking, and transit for travel.
Proximity to Primary, Secondary and Post-Secondary Schools	20%	Schools, colleges and universities are major trip generators and college campuses have high rates of walking and bicycling.

Data Development: State Bicycle Facilities Inventory



Bike Ped Master Plan – 2018 Strategy

Winter 2018 :

Where have we been and what have we accomplished?

- Revisit Goals/Objectives
- MTP Coordination
- Data Review and Development
- Trends/Analysis
- Accomplishments

Spring 2018:

What are the key needs and opportunities moving forward?

- Data Development/ Analysis
- Needs/Opportunities
- Stakeholder Interviews
- Performance Measures and MTP Coordination
- Interagency Coordination and Initiatives.
- Public Meeting #1

Summer 2018:

How to redefine and redirect work around new key initiatives?

- Draft Elements and Initiatives
- Statewide Planning Initiative Coordination
 - DNR: LPRP
 - MDP: SDP “A Better MD”
 - Commerce and Tourism
- Public Meeting #2

Fall 2018:

How do we pull this all together and respond to all the great ideas for a plan submission in January 2019?

- Release Draft (Sep)
- Public Review (Oct)
- Revise (Nov)
- Finalize (Dec)

Next Steps and MBPAC Inputs

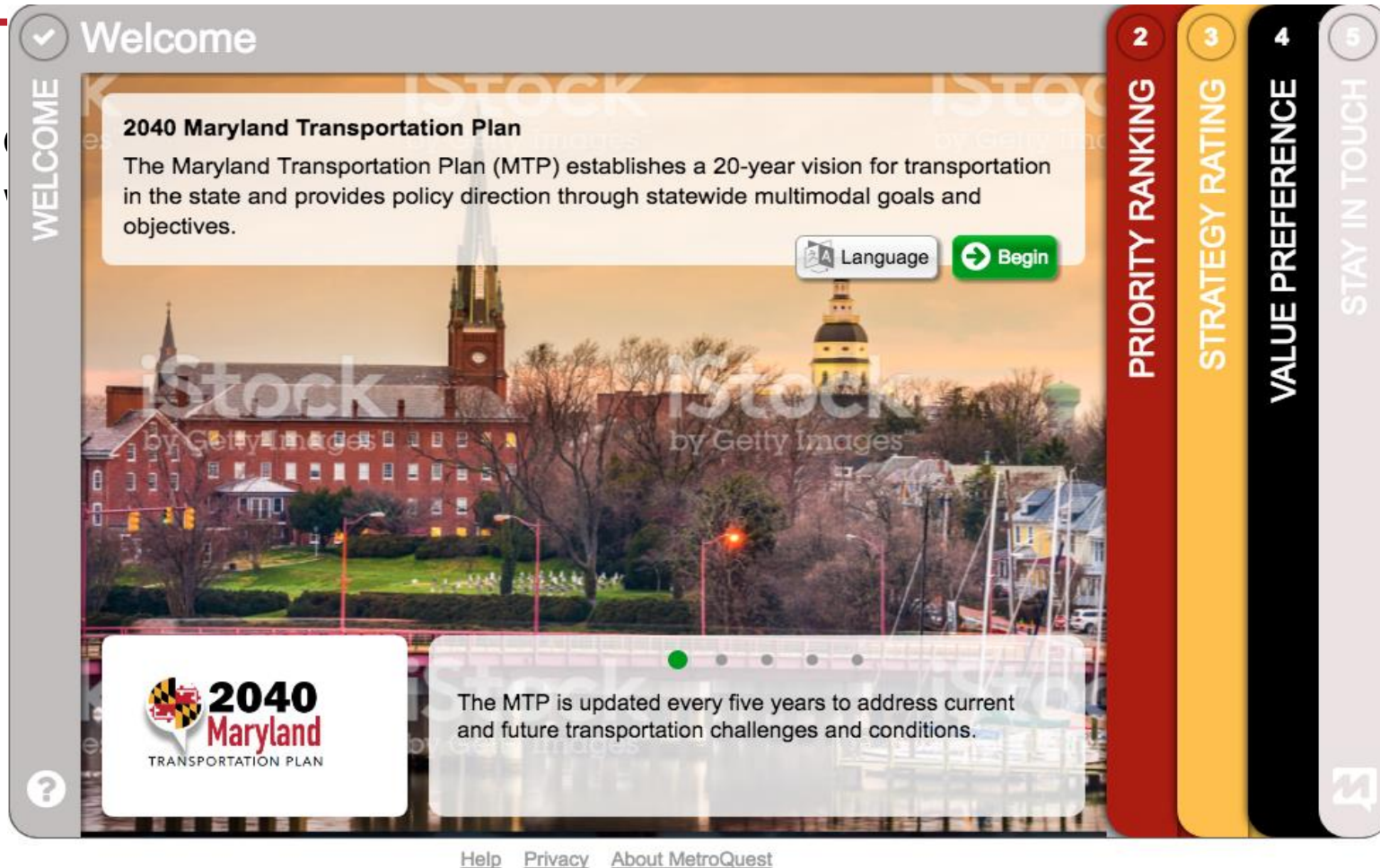
- **Next Steps:**

- Finalize Strategy and Timeline – Web updates
- Data Development and Outreach (cont'd)
- Attainment Report Advisory Committee
- Smart Growth Subcabinet, Land Preservation and Recreation Plan, Statewide Development Plan (A Better MD)
- E-mail Blast and Create Listserve
- Revise Goals and Objectives

- **MBPAC Inputs:**

- Questions and Feedback on Vision/Strategy
- Input on Goals and Objectives: Survey
- Help expand the Contact List
- Public Meetings and Webinars: Help Coordinate/ Participate
- Continual feedback and initiative development at each MBPAC meeting.
- MTP MetroQuest Survey

MTP Survey: Public Outreach



Web site – www.mdot.maryland.gov/MTP

Thanks- For More Information



MARYLAND BICYCLE & PEDESTRIAN MASTER PLAN
2019 Update



2019 Bicycle & Pedestrian Plan Update (BPMP)

Contact : Marty Baker
410-865-1294

BikePedPlanUpdate@mdot.state.md.us

2040 Maryland Transportation Plan (MTP)

Contact: Michelle Martin
410-865-1285

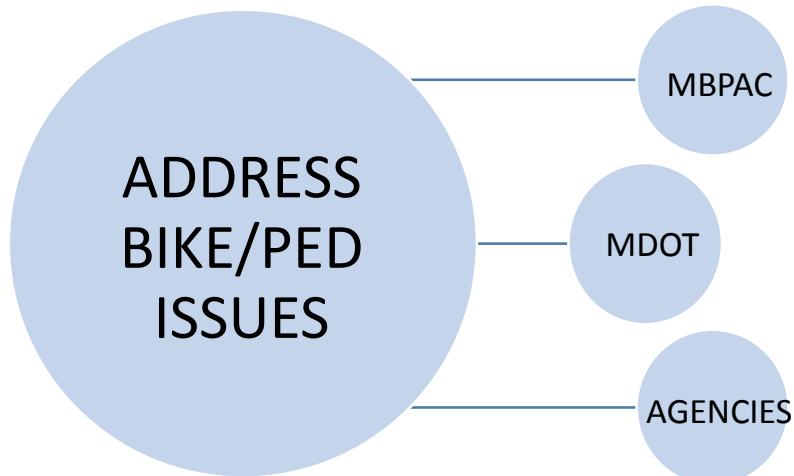
2019MTP@mdot.state.md.us

New Points of Emphasis and Integration(Preliminary)

- Safety, Data Development, Technical Assistance
- Integration:
- 2014 Planning Effort:
 - State/Local
 - On-Road/Off-Road
- 2017: One MDOT
- New(?)
 - Interagency (Commerce, Health, Natural Resources, Planning, Police, Education)
 - Plan Coordination with MTP, SDP, LPRP, etc.
 - Broader Transportation Network:
 - Cycling as integral to transportation solutions for the state. (ARAC)
 - Cyclist may be someone you know.

Challenges – MBPAC Input/Assistance

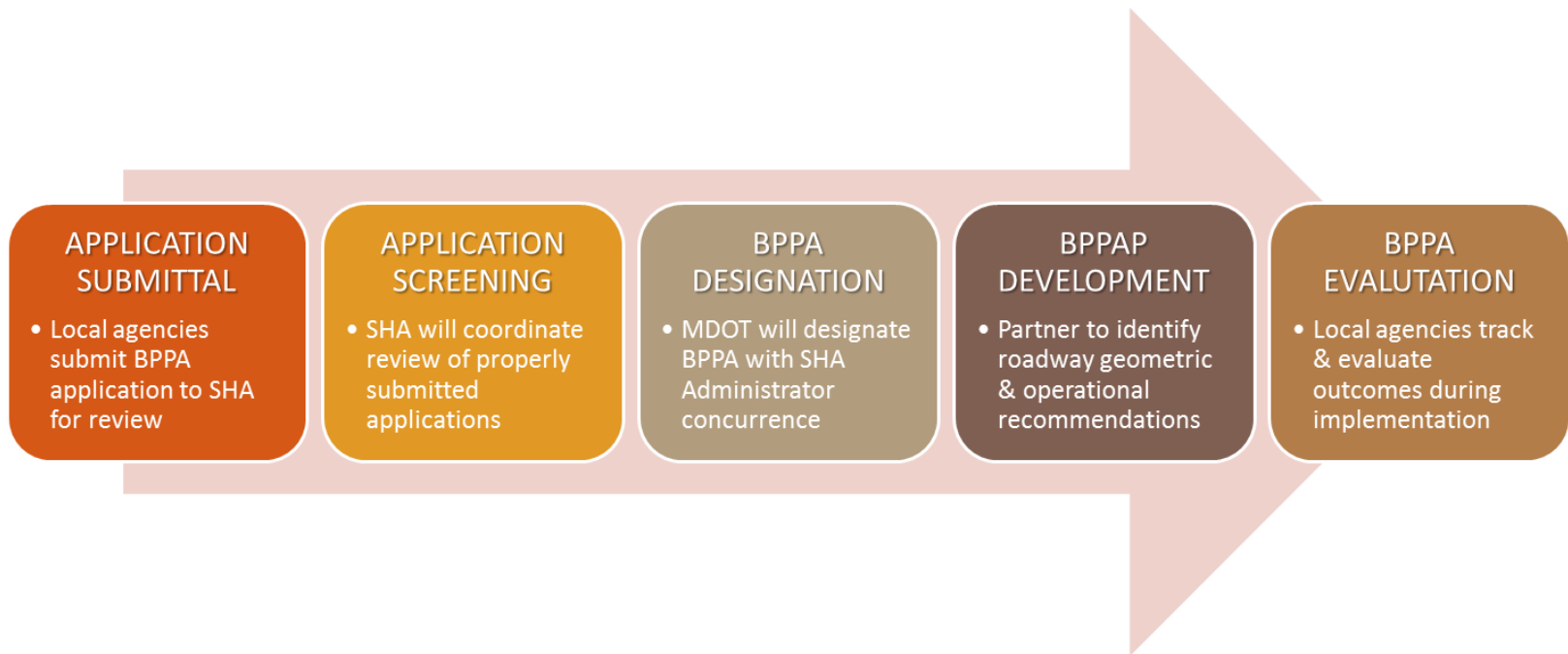
Help make it easier for state and local actors to do the right thing.



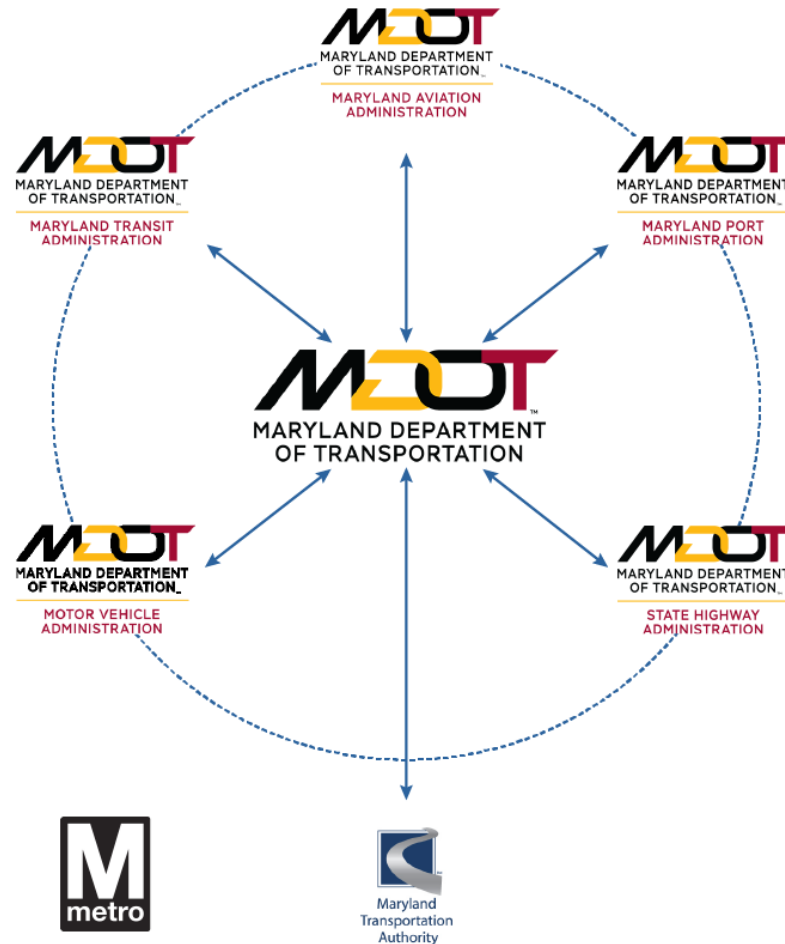
- Planning and Partnerships
- Project Pipelines and Implementation
- Outreach/Education (Resource Development, etc.)
- Advocates vs. Agencies. Agency v. Agency, State v. Local, Residents v. Advocates,
- Local Plans and Prioritization
- Sustainable Community and BPPA Designations –
- Heritage Area Plans – Tourism and Community Development
- Bicycle and Pedestrian Master Plan Update: 2019

Bicycle and Pedestrian Priority Areas

- **Process:** Locals designate areas. If area includes state highway, application with MDOT SHA review.
- **Purpose:** Collaborative approach for state/local coordination around bike/ped needs and opportunities.



Maryland Department of Transportation - MDOT Transportation Services and Support



MDOT Mission

The Maryland Department of Transportation is a customer-driven leader that delivers safe, sustainable, intelligent, and exceptional transportation solutions in order to connect our customers to life's opportunities.

Bicycle and Pedestrian Master Plan Vision (2014)

Maryland will be a place where bicycling and walking are safe, practical, and inviting ways for people of all ages and abilities to complete their everyday travel. Sound policy will enable communities to craft the best solutions to their unique mobility and access challenges, and to reap the social, economic, health, and environmental benefits of expanded transportation choices. Smart prioritization and creative collaboration will ensure wise and effective use of all State resources.

2040 MTP – Schedule

- Fall 2017 – Assessment of Current Trends and Conditions and Outreach on Goals & Priorities/Needs
- Winter 2018 –Future Needs/Forecasts: Draft Implementation Strategies and Performance Measures
- Spring/Summer 2018 - Draft Plan
- Summer/Fall 2018 – Outreach on Plan & Proposed Performance Measures
- Fall 2018 - Finalize MTP and Attainment Report
- **Completion – January 2019**

Successes and Challenges

Successes:

- Strengthened Interagency Coordination
- Launched Bikeways Program, TEP/TA program changes
- Bike Ped Master Plan (2014)
- Short Trip Opportunity Areas and BPPAs.
- Anacostia Riverwalk Trail
- Launched Baltimore Bikeshare
- Initiated MDOT Bike/Ped Workgroup

Challenges:

- Project Pipelines - Local capacity and coordination.
- Planning, Project Delivery and Maintenance.
- Residents, Advocates, Local Agencies working at cross purposes.

